



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Carlos A. MELOS et al.

Appl. No.: 10/714,449

Confirmation No.: To Be Assigned

Filed: November 17, 2003

For: Method To Induce Neovascular
Formation And Tissue Regeneration

Art Unit: To Be Assigned

Examiner: To Be Assigned

Atty. Docket No.: 42597-193226

Customer No:

26694

PATENT TRADEMARK OFFICE

Information Disclosure Statement

Commissioner for Patents
P.O. Box 1450
Alexandria, VA. 22313-1450

Sir:

This is an Information Disclosure Statement submitted under 37 C.F.R. § 1.97 within the time specified under 37 C.F.R. § 1.97(b).

In order to comply with applicant's duty of disclosure under 37 C.F.R. § 1.56, the U.S. Patent and Trademark Office is notified of the documents A1 through A106 which are listed on the attached Form PTO/SB/08A and which the Examiner may deem relevant to patentability of the claims of the above-identified application. One copy of each of the listed documents is submitted herewith.

Sequences of the human VEGF family of proteins [(VEGF-A, VEGF-B, VEGF-C, VEGF-D, VEGF-E, VEGF-F, VEGF-1 (including synthetic constructs of Chain A and Chain B) and P16F-Z)] are available on the website of the U.S. National Center for Biotechnology Information of the National Library of Medicine and the National Institutes of Health (ncbi.nlm.nih.gov) They will be provided to the Examiner upon request.

The present Information Disclosure Statement is being filed before the mailing date of the first Office Action on the merits, and therefore no Statement Under 37 C.F.R. § 1.97(e) or fee under 37 C.F.R. § 1.17(p) is required.

In view of the above, no further translation or statement of relevance is required, and as all requirements of 37 C.F.R. § 1.97 and all official guide lines pertaining to Information Disclosure Statements have been complied with, and it is therefore respectfully requested that the Examiner consider the documents and make them of record.

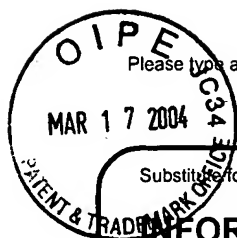
Please charge any necessary fee or credit any overpayment in connection with this Information Disclosure Statement to Deposit Account No. 22-0261.

Respectfully submitted,

Date: March 17, 2001

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Sheet 1 of 10

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OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	A1	Carmeliet P. Mechanisms of angiogenesis and arteriogenesis. Nat Med. 2000 Apr; 6(4):389-95.	
	A2	Braunwald E, Bristow MR. Congestive heart failure: fifty years of progress. Circulation. 2000 Nov 14; 102(20 Suppl 4):IV14-23.	
	A3	Ware A and Simons M (editors). Angiogenesis and Cardiovascular Disease (Oxford University Press Inc., New York, USA, 1999). Pages 159-198, Chapter 8.	
	A4	Ware A and Simons M (editors). Angiogenesis and Cardiovascular Disease (Oxford University Press Inc., New York, USA, 1999). Pages 258-188, Chapter 12.	
	A5	Lazarous DF et al., Comparative effects of basic fibroblast growth factor and vascular endothelial growth factor on coronary collateral development and the arterial response to injury. Circulation. 1996 Sep 1; 94(5):1074-82.	
	A6	Asahara T et al., Local delivery of vascular endothelial growth factor accelerates reendothelialization and attenuates intimal hyperplasia in balloon-injured rat carotid artery. Circulation. 1995 Jun 1; 91(11):2793-801.	
	A7	Banai S et al., Angiogenic-induced enhancement of collateral blood flow to ischemic myocardium by vascular endothelial growth factor in dogs. Circulation. 1994 May; 89(5):2183-9.	
	A8	Grosskreutz CL et al., Vascular endothelial growth factor-induced migration of vascular smooth muscle cells in vitro. Microvasc Res. 1999 Sep; 58(2):128-36.	
	A9	Seko Y et al., Vascular endothelial growth factor (VEGF) activates Raf-1, mitogen-activated protein (MAP) kinases, and S6 kinase (p90rsk) in cultured rat cardiac myocytes. J Cell Physiol. 1998 Jun; 175(3):239-46.	
	A10	Takahashi N et al., Vascular endothelial growth factor induces activation and subcellular translocation of focal adhesion kinase (p125 ^{FAK}) in cultured rat cardiac myocytes. Circ Res. 1999 May 28; 84(10):1194-202.	
	A11	Schaper W. Quo vadis collateral blood flow? A commentary on a highly cited paper. Cardiovasc Res. 2000 Jan 1; 45(1):220-3.	

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	A12	Poltorak et al., VEGF ₁₄₅ a Secreted Vascular Endothelial Growth Factor Isoform That Binds to Extracellular Matrix, The Journal of Biological Chemistry, 1997 March 14, 272 (11): 7151-7158	
	A13	Vale PR, Losordo DW, Symes JF, Isner JM. Gene therapy for myocardial angiogenesis. Circulation 1998; (Suppl.I):I322 (Abstract #1687).	
	A14	Losordo DW et al., Gene therapy for myocardial angiogenesis: initial clinical results with direct myocardial injection of phVEGF ₁₆₅ as sole therapy for myocardial ischemia. Circulation. 1998 Dec 22-29; 98(25):2800-4.	
	A15	Symes JF et al., Gene therapy with vascular endothelial growth factor for inoperable coronary artery disease. Ann Thorac Surg. 1999 Sep; 68(3):830-6; discussion 836-7.	
	A16	Murray et al., Mortality By Cause for Eight Regions Of The World: Global Burden Of Disease Study, May 3, 1997, The Lancet, Vol 349, 1269-1276	
	A17	Reddy KS et al., Emerging epidemic of cardiovascular disease in developing countries. Circulation. 1998 Feb 17; 97(6):596-601.	
	A18	Henry TD. Therapeutic angiogenesis. BMJ. 1999 Jun 5; 318(7197):1536-9.	
	A19	Thomas KA. Vascular endothelial growth factor, a potent and selective angiogenic agent. J Biol Chem. 1996 Jan 12; 271(2):603-6	
	A20	Leung DW, Cachianes G, Kuang WJ, Goeddel DV, Ferrara N. Vascular endothelial growth factor is a secreted angiogenic mitogen. Science. 1989 Dec 8; 246(4935):1306-9.	
	A21	Tischer E et al., The human gene for vascular endothelial growth factor. Multiple protein forms are encoded through alternative exon splicing. J Biol Chem. 1991 Jun 25; 266(18):11947-54.	
	A22	Ferrara N et al., The vascular endothelial growth factor family of polypeptides. J Cell Biochem. 1991 Nov; 47(3):211-8 (Abstract Only)	

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	A23	de Vries C et al., The fms-like tyrosine kinase, a receptor for vascular endothelial growth factor. Science. 1992 Feb 21; 255(5047):989-91. (Abstract Only)	
	A24	Terman BI et al., Identification of the KDR tyrosine kinase as a receptor for vascular endothelial cell growth factor. Biochem Biophys Res Commun. 1992 Sep 30; 187(3):1579-86. (Abstract Only)	
	A25	Galland F et al., Chromosomal localization of FLT4, a novel receptor-type tyrosine kinase gene. Genomics. 1992 Jun; 13(2):475-8. (Abstract Only)	
	A26	Jakeman LB et al., Binding sites for vascular endothelial growth factor are localized on endothelial cells in adult rat tissues. J Clin Invest. 1992 Jan; 89(1):244-53. (Abstract Only)	
	A27	Ferrara N et al., The biology of vascular endothelial growth factor. Endocr Rev. 1997 Feb; 18(1):4-25.	
	A28	Guerrin M et al., Vasculotropin/vascular endothelial growth factor is an autocrine growth factor for human retinal pigment epithelial cells cultured in vitro. J Cell Physiol. 1995 Aug; 164(2):385-94. (Abstract Only)	
	A29	Öberg-Welsh C et al., Effects of vascular endothelial growth factor on pancreatic duct cell replication and the insulin production of fetal islet-like cell clusters in vitro. Mol Cell Endocrinol. 1997 Feb 7; 126(2):125-32.	
	A30	Sondell M et al., Vascular endothelial growth factor has neurotrophic activity and stimulates axonal outgrowth, enhancing cell survival and Schwann cell proliferation in the peripheral nervous system. J Neurosci. 1999 Jul 15; 19(14):5731-40.	
	A31	Asahara T et al., Isolation of putative progenitor endothelial cells for angiogenesis. Science. 1997 Feb 14; 275(5302):964-7.	
	A32	Partanen TA et al., Endothelial growth factor receptors in human fetal heart. Circulation. 1999 Aug 10; 100(6):583-6	
	A33	Takahashi N et al., Vascular endothelial growth factor induces activation and subcellular translocation of focal adhesion kinase (p125 ^{FAK}) in cultured rat cardiac myocytes. Circ Res. 1999 May 28; 84(10):1194-202.	

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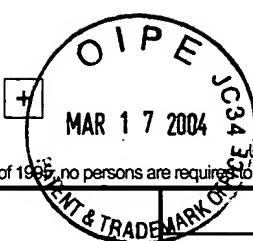
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	A34	Safi J Jr et al., Gene therapy with angiogenic factors: a new potential approach to the treatment of ischemic diseases. J Mol Cell Cardiol. 1997 Sep; 29(9):2311-25.	
	A35	Simons M et al., Clinical trials in coronary angiogenesis: issues, problems, consensus: An expert panel summary. Circulation. 2000 Sep 12; 102(11):E73-86.	
	A36	Takeshita S et al., Intramuscular administration of vascular endothelial growth factor induces dose-dependent collateral artery augmentation in a rabbit model of chronic limb ischemia. Circulation. 1994 Nov; 90(5 Pt 2):II228-34.	
	A37	Henry TD et al., Results of intracoronary recombinant human vascular endothelial growth factor (rhVEGF) administration trial. J Am Coll Cardiol 31 (Suppl A): 65 A, 1998 (Abstract #810-1).	
	A38	Horowitz JR et al., Vascular endothelial growth factor/vascular permeability factor produces nitric oxide-dependent hypotension. Evidence for a maintenance role in quiescent adult endothelium. Arterioscler Thromb Vasc Biol. 1997 Nov; 17(11):2793-800.	
	A39	Lopez JJ et al., Hemodynamic effects of intracoronary VEGF delivery: evidence of tachyphylaxis and NO dependence of response. Am J Physiol. 1997 Sep; 273(3 Pt 2):H1317-23.	
	A40	Mack CA et al., Biologic bypass with the use of adenovirus-mediated gene transfer of the complementary deoxyribonucleic acid for vascular endothelial growth factor 121 improves myocardial perfusion and function in the ischemic porcine heart. J Thorac Cardiovasc Surg. 1998 Jan; 115(1):168-76	
	A41	Tio RA et al., Intramyocardial gene therapy with naked DNA encoding vascular endothelial growth factor improves collateral flow to ischemic myocardium. Hum Gene Ther. 1999 Dec 10; 10(18):2953-60.	
	A42	Crystal RG. Transfer of genes to humans: early lessons and obstacles to success. Science. 1995 Oct 20; 270(5235):404-10	
	A43	Magovern CJ et al., Direct in vivo gene transfer to canine myocardium using a replication-deficient adenovirus vector. Ann Thorac Surg. 1996 Aug; 62(2):425-33	
	A44	Wersto RP et al., Recombinant, replication-defective adenovirus gene transfer vectors induce cell cycle dysregulation and inappropriate expression of cyclin proteins. J Virol. 1998 Dec; 72(12):9491-502.	

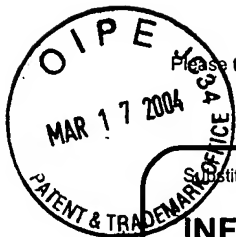
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	A45	Walder CE et al., Vascular endothelial growth factor augments muscle blood flow and function in a rabbit model of chronic hindlimb ischemia. J Cardiovasc Pharmacol. 1996 Jan; 27(1):91-8. (Abstract Only)	
	A46	Takeshita S et al., Gene transfer of naked DNA encoding for three isoforms of vascular endothelial growth factor stimulates collateral development in vivo. Lab Invest. 1996 Oct; 75(4):487-501.	
	A47	Mack CA et al., Salvage angiogenesis induced by adenovirus-mediated gene transfer of vascular endothelial growth factor protects against ischemic vascular occlusion. J Vasc Surg. 1998 Apr; 27(4):699-709.	
	A48	Tsurumi Y et al., Direct intramuscular gene transfer of naked DNA encoding vascular endothelial growth factor augments collateral development and tissue perfusion. Circulation. 1996 Dec 15; 94(12):3281-90.	
	A49	Gilgenkrantz H et al., Transient expression of genes transferred in vivo into heart using first-generation adenoviral vectors: role of the immune response. Hum Gene Ther. 1995 Oct; 6(10):1265-74. (Abstract Only)	
	A50	Dewey RA et al., Chronic brain inflammation and persistent herpes simplex virus 1 thymidine kinase expression in survivors of syngeneic glioma treated by adenovirus-mediated gene therapy: implications for clinical trials. Nat Med. 1999 Nov; 5(11):1256-63. (Abstract Only)	
	A51	Zou Y et al., Leukemia inhibitory factor enhances survival of cardiomyocytes and induces regeneration of myocardium after myocardial infarction. Circulation. 2003 Aug 12; 108(6):748-53.	
	A52	Hollon T. Researchers and regulators reflect on first gene therapy death. Nat Med. 2000 Jan; 6(1):6.	
	A53	Chan SY et al., Tissue-specific consequences of the anti-adenoviral immune response: implications for cardiac transplants. Nat Med. 1999 Oct; 5(10):1143-9. (Abstract Only)	
	A54	Byrnes AP et al., Immunological instability of persistent adenovirus vectors in the brain: peripheral exposure to vector leads to renewed inflammation, reduced gene expression, and demyelination. J Neurosci. 1996 May 1; 16(9):3045-55.	
	A55	Folkman J. Angiogenesis in cancer, vascular, rheumatoid and other disease. Nat Med. 1995 Jan; 1(1):27-31.	

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	A56	Ferrara N. The role of vascular endothelial growth factor in pathological angiogenesis. Breast Cancer Res Treat. 1995; 36(2):127-37. (Abstract Only)	
	A57	Aiello LP et al., Vascular endothelial growth factor in ocular fluid of patients with diabetic retinopathy and other retinal disorders. N Engl J Med. 1994 Dec 1; 331(22):1480-7.	
	A58	Adamis AP et al., Increased vascular endothelial growth factor levels in the vitreous of eyes with proliferative diabetic retinopathy. Am J Ophthalmol. 1994 Oct 15; 118(4):445-50. (Abstract Only)	
	A59	Inoue M et al., Vascular endothelial growth factor (VEGF) expression in human coronary atherosclerotic lesions: possible pathophysiological significance of VEGF in progression of atherosclerosis. Circulation. 1998 Nov 17; 98(20):2108-16.	
	A60	Bolognese L et al., Early predictors of left ventricular remodeling after acute myocardial infarction. Am Heart J. 1999 Aug; 138(2 Pt 2):S79-83.	
	A61	Mehta RH et al., Current concepts in secondary prevention after acute myocardial infarction. Herz. 2000 Feb; 25(1):47-60. (Abstract Only)	
	A62	Hessen SE et al., Risk profiling the patient after acute myocardial infarction. Cardiovasc Clin. 1989; 20(1):283-318. (Abstract Only)	
	A63	Jacoby RM et al., Acute myocardial infarction in the diabetic patient: pathophysiology, clinical course and prognosis. J Am Coll Cardiol. 1992 Sep; 20(3):736-44. (Abstract Only)	
	A64	Beltrami AP et al., Evidence that human cardiac myocytes divide after myocardial infarction. N Engl J Med. 2001 Jun 7; 344(23):1750-7.	
	A65	Kajstura J et al., Myocyte proliferation in end-stage cardiac failure in humans. Proc Natl Acad Sci U S A. 1998 Jul 21; 95(15):8801-5.	
	A66	Herget GW et al. DNA content, ploidy level and number of nuclei in the human heart after myocardial infarction. Cardiovasc Res. 1997 Oct; 36(1):45-51.	

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	A67	Dorfman J et al., Myocardial tissue engineering with autologous myoblast implantation. J Thorac Cardiovasc Surg. 1998 Nov; 116(5):744-51.	
	A68	Murry CE et al., Skeletal myoblast transplantation for repair of myocardial necrosis. J Clin Invest. 1996 Dec 1; 98(11):2512-23.	
	A69	Leor J et al., Transplantation of fetal myocardial tissue into the infarcted myocardium of rat. A potential method for repair of infarcted myocardium? Circulation. 1996 Nov 1; 94(9 Suppl):II332-6. (Abstract Only)	
	A70	Li RK et al., In vivo survival and function of transplanted rat cardiomyocytes. Circ Res. 1996 Feb; 78(2):283-8. (Abstract Only)	
	A71	Orlic D et al., Bone marrow cells regenerate infarcted myocardium. Nature. 2001 Apr 5; 410(6829):701-5.	
	A72	Kocher AA et al., Neovascularization of ischemic myocardium by human bone-marrow-derived angioblasts prevents cardiomyocyte apoptosis, reduces remodeling and improves cardiac function. Nat Med. 2001 Apr; 7(4):430-6.	
	A73	Adler CP et al., Myocardial DNA content, ploidy level and cell number in geriatric hearts: post-mortem examinations of human myocardium in old age. J Mol Cell Cardiol. 1986 Jan; 18(1):39-53. (Abstract Only)	
	A74	Schratzberger P et al., Reversal of experimental diabetic neuropathy by VEGF gene transfer. J Clin Invest. 2001 May; 107(9):1083-92.	
	A75	Rivard A et al., Rescue of diabetes-related impairment of angiogenesis by intramuscular gene therapy with adeno-VEGF. Am J Pathol. 1999 Feb; 154(2):355-63.	
	A76	Anversa P et al., Loss of intermediate-sized coronary arteries and capillary proliferation after left ventricular failure in rats. Am J Physiol. 1991 May; 260(5 Pt 2):H1552-60.	
	A77	Adair TH et al., A stereological method for estimating length density of the arterial vascular system. Am J Physiol. 1994 Apr; 266(4 Pt 2):H1434-8.	

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	A78	Anversa P et al., Li P, Sonnenblick EH, Olivetti G. Effects of aging on quantitative structural properties of coronary vasculature and microvasculature in rats. Am J Physiol. 1994 Sep; 267(3 Pt 2):H1062-73.	
	A79	Hamawy AH et al., Cardiac angiogenesis and gene therapy: a strategy for myocardial revascularization. Curr Opin Cardiol. 1999 Nov; 14(6):515-22.	
	A80	Neufeld G et al., Vascular endothelial growth factor and its receptors. Prog Growth Factor Res. 1994; 5(1):89-97. (Abstract Only)	
	A81	Olofsson B et al., Vascular endothelial growth factor B, a novel growth factor for endothelial cells. Proc Natl Acad Sci U S A. 1996 Mar 19; 93(6):2576-81.	
	A82	Chilov D et al., Genomic organization of human and mouse genes for vascular endothelial growth factor C. J Biol Chem. 1997 Oct 3; 272(40):25176-83.	
	A83	Olofsson B et al., Current biology of VEGF-B and VEGF-C. Curr Opin Biotechnol. 1999 Dec; 10(6):528-35.	
	A84	Poltorak Z et al., Neufeld G. VEGF ₁₄₅ , a secreted vascular endothelial growth factor isoform that binds to extracellular matrix. J Biol Chem. 1997 Mar 14; 272(11):7151-8.	
	A85	Keck PJ et al., Vascular permeability factor, an endothelial cell mitogen related to PDGF. Science. 1989 Dec 8; 246(4935):1309-12.	
	A86	Senger DR et al., Tumor cells secrete a vascular permeability factor that promotes accumulation of ascites fluid. Science. 1983 Feb 25; 219(4587):983-5. (Abstract Only)	
	A87	Brown DC et al., Monoclonal antibody Ki-67: its use in histopathology. Histopathology. 1990 Dec; 17(6):489-503. (Abstract Only)	
	A88	Gerdes J et al., Cell cycle analysis of a cell proliferation-associated human nuclear antigen defined by the monoclonal antibody Ki-67. J Immunol. 1984 Oct; 133(4):1710-5. (Abstract Only)	

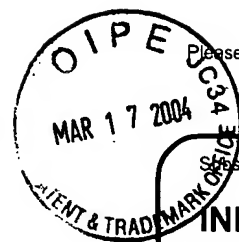
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Sheet 9 of 10

Complete if Known

Application Number	10/714,449
Filing Date	November 17, 2003
First Named Inventor	Carlos A. MELOS et al.
Group Art Unit	To Be Assigned
Examiner Name	To Be Assigned
Attorney Docket Number	42597-193226

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	A89	Scholzen T et al., The Ki-67 protein: from the known and the unknown. J Cell Physiol. 2000; 182:311-322.	
	A90	Soonpaa MH et al., Survey of studies examining mammalian cardiomyocyte DNA synthesis. Circ Res. 1998 Jul 13; 83(1):15-26.	
	A91	MacLellan RW et al., Genetic dissection of cardiac growth control pathways. Annu Rev Physiol. 2000; 62:289-320.	
	A92	Anversa P et al., Ventricular myocytes are not terminally differentiated in the adult mammalian heart. Circ Res. 1998 Jul 13; 83(1):1-14.	
	A93	Anversa P et al., Myocyte renewal and ventricular remodelling. Nature. 2002 Jan 10; 415(6868):240-3.	
	A94	Limana F et al., bcl-2 overexpression promotes myocyte proliferation. Proc Natl Acad Sci U S A. 2002 Apr 30; 99(9):6257-62.	
	A95	Laguens R et al., Entrance in mitosis of adult cardiomyocytes in ischemic pig hearts after plasmid-mediated rhVEGF ₁₆₅ gene transfer. Gene Ther. 2002 Dec; 9(24):1676-81.	
	A96	Henry TD et al., Double blind, placebo controlled trial of recombinant human vascular endothelial growth factor - the VIVA trial. J Am Coll Cardiol 1999 Feb; 33(Suppl.A):384A (Abstract #874-4).	
	A97	Henry TD et al., VIVA trial: one year follow up. Circulation 102 (Suppl II): II 309, 2000 (Abstract #1516).	
	A98	Henry TD et al., The VIVA trial: Vascular endothelial growth factor in Ischemia for Vascular Angiogenesis. Circulation. 2003 Mar 18; 107(10):1359-65.	
	A99	Harada K et al., Vascular endothelial growth factor administration in chronic myocardial ischemia. Am J Physiol. 1996 May; 270(5 Pt 2):H1791-802.	

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	A100	Ishida A et al., Expression of vascular endothelial growth factor receptors in smooth muscle cells. J Cell Physiol. 2001 Sep; 188(3):359-68.	
	A101	Crottogini A et al., Arteriogenesis induced by intramyocardial vascular endothelial growth factor 165 gene transfer in chronically ischemic pigs. Hum Gene Ther. 2003 Sep 20; 14(14):1307-18.	
	A102	Sun Y et al., VEGF-induced neuroprotection, neurogenesis, and angiogenesis after focal cerebral ischemia. J Clin Invest. 2003 Jun; 111(12):1843-51.	
	A103	Schwarz ER et al., Evaluation of the effects of intramyocardial injection of DNA expressing vascular endothelial growth factor (VEGF) in a myocardial infarction model in the rat--angiogenesis and angioma formation. J Am Coll Cardiol. 2000 Apr; 35(5):1323-30.	
	A104	Kornowski R et al., Delivery strategies to achieve therapeutic myocardial angiogenesis. Circulation. 2000 Feb 1; 101(4):454-8.	
	A105	Robinson CJ et al., The splice variants of vascular endothelial growth factor (VEGF) and their receptors. J Cell Sci. 2001 Mar; 114(Pt 5):853-65.	
	A106	Shibuya M. Structure and function of VEGF/VEGF-receptor system involved in angiogenesis. Cell Struct Funct. 2001 Feb; 26(1):25-35.	

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